

Appl. No. : 10/628,879
Filed : July 28, 2003

AMENDMENTS TO THE CLAIMS

Please amend Claim 1 as indicated below.

1. **(Currently Amended)** A method for detecting an analyte in a sample comprising:

(a) contacting a fluorophore-labeled aptamer bound to a solid support with the sample;

(b) directly illuminating the aptamer with polarized light whereby the direct illumination of the fluorophore directly excites the fluorophore;

(c) measuring the fluorescence anisotropy of the fluorophore; and

(d) identifying the presence or amount of the analyte when said fluorescence anisotropy measurement is greater than an anisotropy measurement obtained in the absence of the analyte.

2. **(Previously Presented)** The method of claim 1 wherein the solid support is a bead.

3. **(Previously Presented)** The method of claim 2 wherein the bead is a silica bead.

4. **(Previously Presented)** The method of claim 2 wherein the bead has a diameter between about 1 μm and about 10 μm .

5. **(Previously Presented)** The method of claim 4 wherein the bead has a diameter of about 5 μm .

6. **(Previously Presented)** The method of claim 2 wherein the bead is suspended in solution.

7. **(Previously Presented)** The method of claim 2 wherein the bead is arranged in a two-dimensional array.

8. **(Previously Presented)** The method of claim 1 wherein the aptamer comprises between about 10 and about 100 nucleotides.

9. **(Previously Presented)** The method of claim 1 wherein the aptamer is labeled with a fluorophore selected from the group consisting of fluorescein derivatives, eosin derivatives, coumarin derivatives, and rhodamine derivatives.

10. **(Previously Presented)** The method of claim 9 wherein the aptamer is labeled with carboxyfluorescein (FAM).

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11. **(Previously Presented)** The method of claim 1 wherein the aptamer is part of an array of aptamers.
12. **(Previously Presented)** The method of claim 11 wherein the array comprises two or more addressable locations.
13. **(Previously Presented)** The method of claim 12 wherein each addressable location comprises a single type of aptamer.
14. **(Previously Presented)** The method of claim 12 wherein each addressable location comprises multiple types of aptamers.
15. **(Previously Presented)** The method of claim 14 wherein each type of aptamer is labeled with a fluorophore with unique spectral characteristics.
16. **(Previously Presented)** The method of claim 1 wherein the polarized light is laser light.
17. **(Previously Presented)** The method of claim 1 wherein the analyte is associated with a disease or disorder.
18. **(Previously Presented)** The method of claim 1 wherein the sample is obtained from a patient suspected of suffering from a disease or disorder.
19. **(Previously Presented)** The method of claim 1 wherein the analyte is a protein.
20. **(Previously Presented)** The method of claim 1 wherein the analyte is a metabolite.
21. **(Previously Presented)** The method of claim 1 wherein the sample is from a human patient and the analyte is associated with a disease or disorder.

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INTERVIEW SUMMARY

Applicants thank Examiner Yang for the helpful interview conducted on March 8, 2005. During the interview, the differences between various forms of anisotropy illumination were discussed. It was agreed that the teaching in Potyrailo failed to teach any embodiments of analyte detection involving direct sample illumination. The fact that Potyrailo's cited statement does not state that direct illumination could or should be used in their methods was also discussed. The other references cited by the Examiner in the Final Office Action were also discussed. Additional aspects of the interview are discussed in the following response.